



**Pacific Electric ROW/West Santa Ana Branch Corridor
Alternatives Analysis**

Technical Advisory Committee Meeting #8

Tuesday, July 19, 2011

1:30 PM – 3:30 PM

Bellflower City Hall

Green Room

16600 Civic Center Drive

Bellflower, CA 90706

Meeting Notes

Invitees	Organization
Philip Law	SCAG
Tamara Warren	OCTA
Alan Patashnick	Metro
Fanny Pan	Metro
Michael Kodama	OLDA
Karineh Gregorian	FTA
Linda Wright	Caltrans District 7
Lisa Chen	Los Angeles County DPW
Noel Takahara	California Public Utilities Commission
Karen Heit	Gateway Cities Council of Governments
David Sanchez	City of Anaheim
Deborah Chankin	City of Bellflower
Hal Arbogast	City of Cerritos
Jessica Flores	City of Downey
Dai Vu	City of Garden Grove
Karl Hill	City of Garden Grove
Chris Cheng	City of Garden Grove
Bill Pagett	City of Lakewood/City of Maywood
Jimmy Ewenike	City of Los Angeles, LADOT
Douglas Dumhart	City of La Palma
Christopher Cash	City of Paramount
Alvie Betancourt	City of South Gate
Bryan Cook	City of South Gate
Kevin Wilson	City of Vernon
Nancy Michali	AECOM
Yara Jasso	AECOM
Sacha Schwarzkopf	AECOM
Joel Ulloa	AECOM

1. Welcome

- P. Law initiated the meeting with introductions, and explained that the purpose of the meeting was to discuss the Final Set of Alternatives, provide a summary of the station planning work sessions held with cities throughout the corridor study area during the month of July, update the TAC on the technical efforts of the team including engineering work, and briefly discuss an outline for the Alternatives Analysis Report.

2. City Work Sessions

- S. Schwarzkopf gave an overview of the Station Planning City Work Sessions held during the month of July. He explained the format of each session, and displayed the maps used during the city work sessions to explain the scale at which the team discussed station planning. The maps helped focus the discussions on the potential opportunities throughout the PEROW/WSAB Corridor, and the relationship between the proposed stations and existing and future plans of the cities. All cities contributed constructive information that assisted in further identifying the stations and related future land use plans along the PEROW/WSAB Corridor.
 - N. Michali: The team will send all of the cities a write-up on what was heard during each meeting, as well as pictures of maps with notes taken during the sessions, to confirm that our information correctly reflects what was discussed. This will also provide an opportunity for each city to contribute more ideas, or fill in anything that the team may have left out.

3. Definition of Final Set of Alternatives

- N. Michali discussed the station decisions from each city and the currently proposed alignment alternatives. The alignment of the entire project was broken down into three segments with different challenges and opportunities: Northern Connections (Segment 1), PEROW/WSAB Corridor (Segment 2), and Southern Connections (Segment 3). After discussions with the cities and participating agencies, the team had proposed alignment alternatives that had been refined to reflect the contributions of all stakeholders. The alignment alternatives reflect the different modes:
 - **BRT:** The BRT alternative has two options that would either operate on streets, or use freeway HOV lanes.
 - 1.) The street-running option would travel through streets in the cities of Downey, South Gate, Huntington Park, Vernon, and Central Los Angeles City East. Bus signal priority exists within the city of Los Angeles along Soto Street, and Santa Fe Avenue, as well as other corridors used by the Metro Rapid system. Expanding this signal priority will provide an opportunity for faster operations for the street-running option. 2.) The HOV lane-running option would use the I-105 and I-110 to travel to and from Los Angeles, with the street route, north of the termination of the I-110 Transitway, possibly following the Metro Silver Line route through downtown.
 - The proposed alignments for connecting south through Santa Ana are the same for all modal alternatives. 1.) One alignment would exit the PEROW/WSAB

Corridor at Harbor Boulevard and head east on Westminster Avenue/17th Street to Main Street where it would proceed south on Main Street to interface with the Santa Ana Street Car system on Civic Center Drive as a terminus station. 2.) The second alignment would exit the PEROW/WSAB Corridor on Harbor Boulevard and head south, it would then operate east on 1st Street and turn north on approximately Santiago Street to end at the SARTC.

- LRT, Street Car, and Low Speed Maglev: The alignment alternatives for these modes are similar throughout the corridor, as well as connecting north into Union Station and south into Santa Ana. There are currently four proposed alternatives for connecting north:
 - **East Bank Alternative:** The alignment would exit the north end of the PEROW/WSAB Corridor and use the San Pedro Subdivision to head north with proposed stations at a new the Metro Green Line station (Paramount), Gardendale Street (Downey), Firestone Boulevard (South Gate), Gage Avenue (Huntington Park/Bell), Leonis/District Avenue (Vernon). The alignment would then proceed north using the UP-owned rail tracks north of the Los Angeles River to turn west, and finally head north using the Metro-owned/Metrolink-operated east bank right-of-way toward Union Station with proposed stations at Soto Avenue/Olympic Boulevard (Los Angeles) and Union Station (Los Angeles).
 - **West Bank Alternative 1:** The alignment would follow the same alignment as the East Bank alternative up to the Leonis/District Station in Vernon. It would head west along the south/west bank of the Los Angeles River through to a final station at Union Station.
 - **West Bank Alternative 2:** This alternative follows the same alignment as the previous two alternatives until the Gage Station, where this option would use the UP-owned tracks along Randolph Street to head west through Huntington Park. At Pacific Boulevard the alignment would head north and meet the Harbor Subdivision to continue north. It would then cross under the Redondo Junction to the west bank of the river, and use the Metro-owned right-of-way to reach Union Station. New proposed stations for this alternative are: Pacific Boulevard (Huntington Park) and Pacific Boulevard/Harbor Subdivision (Vernon).
 - **West Bank Alternative 3:** This alternative would follow the same alignment as Alternative 2 up to the northern end of the Harbor Subdivision, where it would head northwest along Santa Fe Street, using a combination of aerial and below-grade configurations. North of the I-10 the alignment would head northwest to reach Alameda Street and continue north to interface with the Metro Gold and use its current route (north of the existing Little Tokyo Station) to reach Union Station. A station at 7th/Alameda (Los Angeles) has been added to this option.
- Following discussions with cities, new stations were added at Knott Avenue (Anaheim) and Euclid Street (Garden Grove) for the LRT/Low Speed Maglev alternatives; at Magnolia Street (Garden Grove) for the Street Car Alternative; and Lakewood Boulevard (Bellflower) for the BRT Option.

- N. Michali initiated a discussion on opportunities for Maintenance and Storage Facilities, and emphasized the importance of reducing dead-head (non-revenue) travel by possibly developing facilities at either end of the system. The project may be constructed in segments and there is a need for storage and maintenance facilities for each phase. Metro is at capacity with their bus and rail maintenance facilities, and would most likely require an additional facility to operate any of the proposed alternatives.
 - D. Chankin: How much land are you looking for, and does the facility need to be immediately adjacent to the right-of-way?
 - N. Michali: 6-10 acres would be ideal, and it would need to be immediately adjacent to the proposed alignments. Additionally, maintenance facilities definitely translate into employment opportunities.
- N. Michali added that daily storage facilities require less space and could potentially be built along the right-of-way. Santa Ana has identified some future space for this project adjacent to the SARTC, and there is some space available on the Harbor Subdivision that could potentially be used as well.
- N. Michali discussed where the team is on defining the alternatives in order to begin their modeling. Metro and OCTA have contributed extensively to the development of the TSM alternative through identification of bus service improvements, rail service improvements, possible opportunities for parking structures, and intersection improvements. The TSM typically should be 10-15% of the cost of the build alternatives, which translates into approximately \$200 million for this project. The team is continuing to work on defining the BRT, LRT, and Street Car alternatives. The Low Speed Maglev alternative has been the most challenging to define due to limited available information. N. Michali reviewed a presentation on the project team's approach for defining the Low Speed Maglev alternative.
 - K. Heit: At what speed were you going to measure the Noise and Vibration effects?
 - N. Michali: We will measure it at an average and maximum speed, similar to our approach for the LRT Alternative that has comparable speeds. Street Car falls under a lower category because it can only travel up to 35 mph.
 - B. Pagett: You may want to consider including the capital costs of increasing local services per city to improve access to this proposed system, and identify what subsidy they may be able to receive in order to do so. Also, have you considered looking into using alternative power for fueling this system?
 - N. Michali: Thank you for the suggestion. We will definitely consider these issues during preparation of the Alternatives Analysis Report.
 - K. Wilson: What is the maximum speed for the Linimo system, and can it be increased?
 - J. Ulloa: The maximum speed is 62 mph given the current design of the system. According to studies, it can potentially reach higher speeds, but the technology would require significant upgrading in order to accommodate faster operations.

4. Technical Efforts

- N. Michali gave an update on the team's engineering efforts. The entire project area had been divided into three segments: 1.) Northern Connections; 2.) PEROW/WSAB Corridor; and 3.) Southern Connections. The team's engineers have analyzed the engineering feasibility of these segments and are finalizing the analysis of the third segment.
- N. Michali provided an overview of Travel Demand Modeling (TDM) and User Benefits methodology. The team is finalizing the Definition of Alternatives, and will begin modeling in the coming weeks.
- N. Michali briefly reviewed the team's Environmental Approach, including the assessment areas identified for comparing each alternative's environmental benefit/impact in the AA report.

5. Final Report

- N. Michali reviewed the Final Alternatives Analysis (AA) report outline and explained that there were three levels of information provided at this level. There will be a series of technical memorandums addressing technical issues in more detail, this information will be summarized for inclusion in the Alternatives Analysis, along with public and stakeholder input received throughout the study, and an executive summary presenting an overview of the technical information and stakeholder input. In September, a draft document will be available, but it will not include recommendations. Recommendations will be developed based on public outreach and discussions scheduled starting during the fall and concluding in early 2012. Following public and stakeholder discussions, the recommendations developed by the Steering Committee will be included in the final version of the AA report. In September, we will bring a draft of the report for your review.
 - K. Wilson: For the alternatives, how are you determining its vertical configuration? Is it based on cities' preferences?
 - N. Michali: There has been a three-tier approach to determining vertical alignments. The team's engineers first looked at it internally to identify where grade separations were required; then the team received input from the cities, which was at times different from what the engineering conclusions were; and the third tier will be looking at traffic impacts. All of that information will be shared with you in September.
 - B. Pagett: Since Santa Ana only wants an at-grade alignment, does it mean that the Low Speed Maglev Alternative will have to stop and not continue further into their city?
 - N. Michali: The team is proposing to carry forward and study the system through the city of Santa Ana as an aerial alignment in order to identify the cost differences, but also the time-savings of constructing an aerial configuration through Santa Ana.
 - T. Warren: Are you developing relative contingencies for the Maglev alternative, given the scarcity of available information?
 - N. Michali: Yes. For any alternative during an AA, with a 5% level of engineering, there is a high level of contingency that is applied to project costs. The team is proposing a higher contingency for the Low Speed Maglev alternative. Typically, contingencies at this level are approximately 30-35%. Currently, Atlanta is studying High Speed Maglev as an option for an AA study they are conducting, and we will base our contingency for the Low Speed Maglev Alternative on their study methodology. Their study is slightly

ahead of ours, and they have done research and prepared a cost methodology that was accepted by the FHWA and FRA.

- K. Hill: It appears that you have not studied all of the details of the maglev and it is very likely that there may be obstacles if we pursue the maglev.
- N. Michali: We have just recently begun our work on the maglev and our findings and methodology is evolving. One of the key constraints that we have faced in the Northern Connection area is that there are 4-5 freeways that we need to cross. If we can operate at-grade, there is sufficient room to cross under the freeways. If we must go above-grade, we would have to go very high for any alternative. We will be meeting with Caltrans to address some of those issues.
- D. Chankin: There is a significant amount of information regarding the description of these alternatives, including their vertical configuration. Presenting all of this information for a final decision may be a challenge. How specific do we want to be with as we develop our final recommendations?
- N. Michali: This is a very complicated project and the study may end up recommending a combination of alternatives.
- K. Wilson: Can the maglev operate under ground, and are you considering that if you pursue an alternative into downtown?
- N. Michali: The maglev can operate under ground. What we are considering for the Low Speed Maglev Alternative is a combination of below-grade and aerial configurations into downtown, as illustrated by one of our alignment alternative maps.
- K. Wilson: Are there any electromagnetic concerns with the maglev currently?
- N. Michali: Yes, this is a new environmental impact area with evolving knowledge, but it has been required in recent Metro environmental documents. We will be discussing it as part of this AA study.
- D. Chankin: When is the Steering Committee planned to meet next? Also, could we please have the meeting minutes from this meeting distributed with the agenda for the next meeting?
- P. Law: The next Steering Committee meeting is in October. The next TAC meeting is scheduled for September. We can definitely have the meeting notes from this meeting distributed along with next meeting's agenda as well.

6. Next Meeting

Purpose: Share initial results of technical works

- Tuesday, September 20, 2011, 1:30 PM
- Location: Orange County Location TBD